

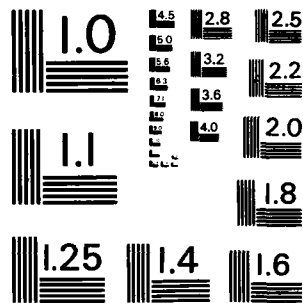
AD-A125 955 JUSTIFICATION OF ESTIMATES FOR FISCAL YEAR 1984  
SUBMITTED TO CONGRESS JAN..(U) DEPUTY CHIEF OF STAFF  
RESEARCH DEVELOPMENT AND ACQUISITION IA.. R STUART  
UNCLASSIFIED JAN 83 RDXJ-AC-84-1 F/G 5/1

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# DEPARTMENT OF THE AIR FORCE

JUSTIFICATION OF ESTIMATES FOR FISCAL YEAR 1984  
SUBMITTED TO CONGRESS JANUARY 1983



Missile Procurement, Air Force

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DEPARTMENT OF THE AIR FORCE

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## MISSILE PROCUREMENT, AIR FORCE

For construction, procurement, and modification of missiles, spacecraft, rockets, and related equipment, including spare parts and accessories therefor, ground handling equipment, and training devices; expansion of public and private plants, Government-owned equipment and installation thereof in such plants, erection of structures, and acquisition of land without regard to Section 9774 of Title 10, United States Code, for the foregoing purposes, and such lands and interests therein, may be acquired and construction prosecuted thereon prior to the approval of title as required by Section 355, Revised Statutes, as amended; reserve plant and Government and contractor-owned equipment layaway; and other expenses necessary for the foregoing purposes including rents and transportation of things; \$8,570,834 to remain available for obligation until September 30, 1986 (5 U.S.C. 3109; 10 U.S.C. 2271-79, 2363, 2386, 2653, 2672, 2672a, 8012, 8062, 9501-02, 1905, 9531-32, 9741-42; 31 U.S.C. 1301; 50 U.S.C. 451, 453, 455; Department of Defense Appropriation Act, 1983, additional authorizing legislation to be proposed.)

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Missile Procurement, Air Force

31 Jan 83

## Program and Financing (in thousands of dollars)

## Summary

Identification code	57-3020-0-1-051	Budget plan (amounts for procurement actions programmed)			Obligations			
		1982 actual	1983 est.	1984 est.	1982 actual	1983 est.	1984 est.	
<b>Program by activities:</b>								
<b>Direct:</b>								
1.	Ballistic missiles	94,600		2,800,917	46,729	30,090	1,660,657	
2.	Other missiles	1,728,630	1,872,300	1,717,430	1,003,214	2,084,392	1,765,292	
3.	Modification of inservice missiles	82,452	91,300	135,650	67,387	122,141	112,801	
4.	Spare and repair parts	199,850	208,200	356,809	139,754	184,013	340,510	
5.	Other support	2,390,918	2,786,900	3,560,028	2,034,119	2,554,167	3,274,076	
	<b>Total direct</b>	<b>4,496,650</b>	<b>4,958,700</b>	<b>8,570,834</b>	<b>3,291,203</b>	<b>4,974,803</b>	<b>7,153,536</b>	
	<b>Reimbursable program</b>	<b>101,237</b>	<b>251,300</b>	<b>129,300</b>	<b>77,824</b>	<b>242,814</b>	<b>151,934</b>	
10.0001	<b>Total</b>	<b>4,597,887</b>	<b>5,210,000</b>	<b>8,700,134</b>	<b>3,369,027</b>	<b>5,217,617</b>	<b>7,305,470</b>	
<b>Financing:</b>								
<b>Offsetting collections from:</b>								
11.0001	Federal funds	-82,698	-223,406	-114,948	-75,920	-223,406	-114,948	
13.0001	Trust funds	-18,518	-2,100	-2,300	-18,548	-2,100	-2,300	
14.0001	Non-federal sources	-21	-25,794	-12,052	-29	-25,794	-12,052	
17.0001	Recoveries of prior year obligations(-)				-3,013			
21.4001	Unobligated balance available, start of year:							
21.4002	For completion of prior year budget plans				-1,264,254	-2,454,561	-2,446,944	
21.4003	Available to finance new budget plans		-35,900			-35,900		
22.4001	Reprogramming from or to prior year budget plan	-34,828						
23.4001	Unobligated balance transferred from other accounts(-)		-15,000			-15,000		
24.4001	Unobligated balance transferred to other accounts	14,489	35,900		14,489	35,900		
24.4002	Unobligated balance available, end of year:							
25.0001	For completion of prior year budget plans				2,454,561	2,446,944	3,841,608	
26.0001	Available to finance subsequent year budget plans	35,900			35,900			
27.0001	Unobligated balance lapsing	20,337	15,000		20,337	15,000		
39.0001	<b>Budget authority</b>	<b>4,532,550</b>	<b>4,958,700</b>	<b>8,570,834</b>	<b>4,532,550</b>	<b>4,958,700</b>	<b>8,570,834</b>	
<b>Budget authority:</b>								
40.0001	Appropriation	4,559,550	4,941,100	8,570,834	4,559,550	4,941,100	8,570,834	
40.0002	Reduction pursuant to P.L. 97-377		-21,600			-21,600		
41.0001	Transferred to other accounts(-)	-27,000			-27,000			
42.0001	Transferred from other accounts		24,200			24,200		
43.0001	Appropriation (adjusted)	4,532,550	4,943,700	8,570,834	4,532,550	4,943,700	8,570,834	
50.0001	Reappropriation		15,000			15,000		
<b>Relation of obligations to outlays:</b>								
71.0001	Obligations incurred, net				3,274,530	4,966,317	7,176,170	
72.4001	Obligated balance, start of year				2,238,448	2,473,271	3,511,688	
74.4001	Obligated balance, end of year				-2,473,271	-3,511,688	-5,624,258	
77.0001	Adjustments in expired accounts				32,506			
78.0001	Adjustments in unexpired accounts				-3,013			
90.0001	<b>Outlays</b>				<b>3,069,199</b>	<b>3,927,900</b>	<b>5,063,600</b>	

AF	TRODDEN	Carneck	Missile Procurement, Air Force	31 Jan 83
Object Classification (in thousands of dollars)				Summary
Identification code	57-3020-0-1-051	1982 actual	1983 est.	1984 est.
Direct obligations:				
131.001	Equipment	3,291,203	4,974,803	7,153,536
199.001	Total direct obligations	3,291,203	4,974,803	7,153,536
Reimbursable obligations:				
231.001	Equipment	77,824	242,814	151,934
999.901	Total obligations	3,369,027	5,217,617	7,305,470



AF	TRODDEN	Carmack	Missile Procurement, Air Force			31 Jan 83		
Program and Financing (in thousands of dollars)						1980 Fiscal year program		
Identification code		57-3020-0-1-051		Budget plan (amounts for procurement actions programmed)		Obligations		
				1982 actual	1983 est.	1984 est.	1982 actual	1983 est.
Program by activities:								
Direct:								
	1.	Ballistic missiles					2,467	
	2.	Other missiles					80,037	
	3.	Modification of inservice missiles					1,951	
	4.	Spares and repair parts					9,320	
	5.	Other support					68,630	
		Total direct					162,405	
		Reimbursable program					151	
10.0001		Total					162,556	
Financing:								
Offsetting collections from:								
11.0001		Adjustment to prior year federal fund order					277	
13.0001		Adjustment to prior year trust fund orders					42	
17.0001		Recoveries of prior year obligations(-)					-1,693	
		Unobligated balance available, start of year:						
21.4001		For completion of prior year budget plans					-191,545	
21.4002		Reprogramming from or to prior year budget plan	-30,363					
23.4001		Unobligated balance transferred to other accounts	10,026				10,026	
25.0001		Unobligated balance lapsing	20,337				20,337	
40.0001		Budget authority (appropriation)						

AF	TRODDEN	Carmack	Missile Procurement, Air Force	31 Jan 83
Program and Financing (in thousands of dollars)				1981 Fiscal year program
Identification code	57-3020-0-1-051	Budget plan (amounts for procurement actions programmed)		Obligations
		1982 actual	1983 est.	1984 est.
Program by activities:				
Direct:				
1.	Ballistic missiles			7,709
2.	Other missiles			7,740
3.	Modification of inservice missiles			257,896
4.	Spares and repair parts			176,335
5.	Other support			20,848
				38,702
				33,548
				31,035
				357,767
				121,586
	Total direct			677,768
	Reimbursable program			375,398
				9,979
10.0001	Total			687,747
				375,398
Financing:				
Offsetting collections from:				
11.0001	Adjustment to prior year federal fund order			6,501
13.0001	Adjustment to prior year trust fund orders			-72
14.0001	Adjustment to non-federal sources			-8
17.0001	Recoveries of prior year obligations(-)			-1,320
	Unobligated balance available, start of year:			
21.4001	For completion of prior year budget plans			-1,072,709
21.4002	Reprogramming from or to prior year budget plan	-4,463		-375,398
23.4001	Unobligated balance transferred to other accounts	4,463		
				4,463
24.4001	Unobligated balance available, end of year			375,398
40.6001	Budget authority (appropriation)			

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Missile Procurement, Air Force

31 JAN 83

## Program and Financing (in thousands of dollars)

1982 Fiscal year program

Identification code	57-3020-0-1-051	Budget plan (amounts for procurement actions programed)			Obligations			
		1982 actual	1983 est.	1984 est.	1982 actual	1983 est.	1984 est.	
<b>Program by activities:</b>								
Direct:								
1.	Ballistic missiles	94,800			36,553	22,350	35,897	
2.	Other missiles	1,728,630			665,281	822,197	241,152	
3.	Modification of inservice missiles	82,452			44,568	30,439	7,425	
4.	Spares and repair parts	199,850			96,886	31,978	70,986	
5.	Other support	2,390,918			1,607,722	694,125	89,071	
	<b>Total direct</b>	<b>4,486,650</b>			<b>2,451,030</b>	<b>1,601,089</b>	<b>444,521</b>	
	Reimbursable program	101,237			67,694	29,209	4,334	
10.0001	<b>Total</b>	<b>4,597,887</b>			<b>2,518,724</b>	<b>1,630,298</b>	<b>448,865</b>	
<b>Financing:</b>								
Offsetting collections from:								
11.0001	Federal funds	-82,698			-82,698			
13.0001	Trust funds	-18,518			-18,518			
14.0001	Non-federal sources	-21			-21			
Unobligated balance available, start of year:								
21.4001	For completion of prior year budget plans					-2,079,163	-448,865	
21.4002	Available to finance new budget plans		-35,900			-35,900		
23.4001	Unobligated balance transferred to other accounts		35,900			35,900		
Unobligated balance available, end of year:								
24.4001	For completion of prior year budget plans				2,079,163	448,865		
24.4002	Available to finance subsequent year budget plans	35,900			35,900			
39.0001	<b>Budget authority</b>	<b>4,532,550</b>			<b>4,532,550</b>			
<b>Budget authority:</b>								
40.0001	Appropriation	4,559,550			4,559,550			
41.0001	Transferred to other accounts(-)	-27,000			-27,000			
43.0001	<b>Appropriation (adjusted)</b>	<b>4,532,550</b>			<b>4,532,550</b>			

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Missile Procurement, Air Force

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## Program and Financing (in thousands of dollars)

1983 Fiscal year program

Identification code 57-3020-0-1-051

Budget plan (amounts for  
procurement actions programmed)

## Obligations

	1982 actual	1983 est.	1984 est.	1982 actual	1983 est.	1984 est.
<b>Program by activities:</b>						
<b>Direct:</b>						
2. Other missiles		1,872,300			1,085,860	652,568
3. Modification of inservice missiles		91,300			53,000	26,378
4. Spares and repair parts		208,200			121,000	62,524
5. Other support		2,786,900			1,738,458	627,268
<b>Total direct</b>		<b>4,958,700</b>			<b>2,998,316</b>	<b>1,368,738</b>
Reimbursable program		251,300			213,605	37,695
10.0001 <b>Total</b>		<b>5,210,000</b>			<b>3,211,921</b>	<b>1,406,431</b>
<b>Financing:</b>						
<b>Offsetting collections from:</b>						
11.0001 Federal funds		-223,406			-223,406	
13.0001 Trust funds		-2,100			-2,100	
14.0001 Non-federal sources		-25,794			-25,794	
21.4001 Unobligated balance available, start of year						-1,998,079
22.4001 Unobligated balance transferred from other accounts(-)		-15,000			-15,000	
24.4001 Unobligated balance available, end of year					1,998,079	591,648
25.0001 Unobligated balance lapsing		15,000			15,000	
39.0001 <b>Budget authority</b>		<b>4,958,700</b>			<b>4,958,700</b>	
<b>Budget authority:</b>						
40.0001 Appropriation		4,941,100			4,941,100	
40.0002 Reduction pursuant to P.L. 97-377		-21,600			-21,600	
42.0001 Transferred from other accounts		24,200			24,200	
43.0001 Appropriation (adjusted)		4,943,700			4,943,700	
50.0001 Reappropriation		15,000			15,000	

AF	TRODDEN	Carmack	Missile Procurement, Air Force			31 Jan 83		
Program and Financing (in thousands of dollars)						1984 Fiscal year program		
Identification code 57-3020-0-1-051						Obligations		
Budget plan (amounts for procurement actions programed)								
1982 actual 1983 est. 1984 est.						actual 1983 est. 1984 est.		
Program by activities:								
Direct:								
	1. Ballistic missiles				2,800,917			1,624,960
	2. Other missiles				1,717,430			871,572
	3. Modification of inservice missiles				135,650			79,000
	4. Spares and repair parts				356,809			207,000
	5. Other support				3,560,028			2,557,737
	Total direct				8,570,834			5,340,269
	Reimbursable program				129,300			109,905
10.0001	Total				8,700,134			5,450,174
Financing:								
Offsetting collections from:								
11.0001	Federal funds				-114,948			-114,948
13.0001	Trust funds				-2,300			-2,300
14.0001	Non-federal sources				-12,052			-12,052
24.4001	Unobligated balance available, end of year							3,249,960
40.0001	Budget authority (appropriation)				8,570,834			8,570,834

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Missile Procurement, Air Force

31 JAN 83

(Supplemental now requested under existing legislation)

## Program and Financing (in thousands of dollars)

Identification code	57-3020-1-1-051	Budget plan (amounts for procurement actions programmed)			Obligations		
		1982 actual	1983 est.	1984 est.	1982 actual	1983 est.	1984 est.
Relation of obligations to outlays:							
71 0001	Obligations incurred, net						
90 0001	Outlays						

ACTIVITY: 1. Ballistic Missiles

(In Thousands of Dollars)  
Program Requirement - FY 1985 - \$3,957,435  
Program Requirement - FY 1984 - 2,800,917  
Program Requirement - FY 1983 - 0  
Program Requirement - FY 1982 - 94,800

PART I - PURPOSE AND SCOPE

This activity provides for complete operational intercontinental ballistic missiles, including the airframe structure and installed power units, communications guidance and control equipment, re-entry vehicle (excluding nuclear payloads), instruments and auxiliary equipment installed in the missiles, and penetration aids. It also provides for peculiar support equipment in direct support of operational ballistic missiles including ground guidance and control systems, equipment to maintain the operational status of the system, specialized ground handling equipment, and system trainers. The ground equipment is used to transport, assemble and disassemble, maintain, checkout, launch, and guide ballistic missiles. The specialized training equipment includes system trainers for proficiency training of maintenance and operator crews. This activity also provides for the modernization of the ballistic missile launch and launch control facilities and the integration of new equipment into the launch control center. It includes hardware, training equipment, data and site activation effort required to modernize ballistic missile facilities.

PART II - JUSTIFICATION OF FUNDS REQUESTED

The FY 1984 budget estimate includes requests for funds for procurement of 27 Peacekeeper missiles and associated support equipment. The FY 1985 request for authorization includes funds for 37 Peacekeeper missiles. Description and justification for the requests follow:

Peacekeeper - The Peacekeeper is an advanced, multiple independently targetable reentry vehicle ICBM. Present plans are for deployment of 100 Peacekeeper missiles in a survivable basing mode. Funds are requested in 1984 for procurement of 27 missiles and associated support equipment. The FY 1985 request is for 37 missiles and associated support equipment. (RDT&E PE 64312F, 11215F)

ICBM C-3 - The FY 1984 request for ICBM C3 Integration completes procurement of Minuteman launch control center accommodations for installation of the Strategic Air Command Digital Network (SACDIN). (RDT&E PE 11213F)

The following tabulation shows the composition of ballistic missile program requirements:

	<u>FY 1982</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>
<u>Weapon System</u>				
Minuteman	\$ 42,500			
Peacekeeper			\$2,770,029	\$ 3,957,435
ICBM C3 Integration	52,300		30,888	
TOTAL BUDGET ACTIVITY	\$94,800		\$2,800,917	\$3,957,435



ACTIVITY: 2. Other Missiles

(In Thousands of Dollars)  
Program Requirements - FY 1985 - \$2,246,875  
Program Requirements - FY 1984 - 1,717,430  
Program Requirements - FY 1983 - 1,872,300  
Program Requirements - FY 1982 - 1,728,630

PART I - PURPOSE AND SCOPE

This activity provides funds for procurement of strategic air-to-ground cruise missiles, tactical ground-to-ground cruise missiles, tactical air-to-air, air-to-ground and ground-to-air missiles and target drones. Weapon system cost includes flyaway costs (airframe, propulsion equipment, electronics and armament), peculiar support equipment (PSE), system peculiar training equipment and publications and technical data.

PART II- JUSTIFICATION OF FUNDS REQUESTED

The FY 1984 budget estimate includes funds for the procurement of the Air Launched Cruise Missile (ALCM) support equipment, the Ground Launched Cruise Missile (GLCM), the SPARROW and SIDEWINDER air-to-air tactical missiles, MAVERICK and HARM air-to-ground missiles, RAPIER and STINGER air base defense missiles, and target and tactical drones. Also included are funds to initiate procurement of the Advanced Medium Range Air-to-Air Missile (AMRAAM). Descriptions and justification for the requests follow:

AGM-86B, ALCM - The ALCM is a small, long range, accurate, nuclear armed, air-to-ground cruise missile planned for use on the bomber force. The missile is internally guided by an inertial navigation system which is updated by terrain contour matching. The ALCM will expand the lethal footprint of penetrating strategic bomber forces by providing additional target coverage and routing flexibility and by stressing enemy defenses. FY 1984 and FY 1985 funds requested will procure support equipment. (RDT&E PE 64361F, 11122F)

BGM-109, GLCM - The GLCM is a small, long range, accurate, nuclear armed, ground-to-ground cruise missile which will provide increased firepower for non-strategic nuclear forces. FY 1984 funds will cover procurement of 120 missiles, 30 transporter erector launchers (TELs), 18 launch control centers (LCCs) and other support equipment. The FY 1985 request is for 120 missiles and associated support equipment. (RDT&E PE 64362F, 27314F)

AIM-7M SPARROW - The Sparrow is a rocket propelled air-to-air missile guided by a solid state radar homing device with dual mode continuous wave or pulse doppler. The AIM-7M was developed to provide for defense against enemy aircraft and to maintain air superiority. The funds requested for FY 1984 will procure 1005 missiles. (RDT&E PE 27161F)

AIM-9M SIDEWINDER - The SIDEWINDER is designed for close-in "dogfight" combat against highly maneuverable fighter aircraft. Designed for visual attack, the SIDEWINDER has an infrared seeker with solid state electronics, an active optical fuze, and an annular blast fragmentation warhead, all combining to result in increased lethality. The funds requested for FY 1984 will procure 1700 missiles. (RDT&E PE 27161F)

AGM-65D MAVERICK - The MAVERICK is an air-to-ground missile designed to destroy small hard targets during day or night or adverse weather. The AGM-65D version of the missile incorporates Imaging Infrared (IIR), using thermal detection technology to provide an effective 24 hour day/night/adverse weather weapon. The FY 1984 request will procure 2600 missiles. The FY 1985 request is for 5729 missiles. (RDT&E PE 64608F, 27313F)

AGM-88A HARM - The HARM is an air-to-surface anti-radiation missile designed to damage or suppress radar-directed air defense systems. Advanced features include moderate size and weight, high speed, high accuracy, high sensitivity, wideband frequency coverage in a single seeker, long stand off range and the ability to change to different target frequencies while the missile is in flight. The FY 1984 request will procure 285 missiles. The request for FY 1985 is for 872 missiles. (RDT&E PE 27162F)

RAPIER - A short range, low level, all weather, surface to air defense missile system. It is produced in the United Kingdom (UK) and will be used to defend air bases in the UK. The FY 1984 and FY 1985 request will continue the procurement started in FY 1982. (No RDT&E)

AMRAAM - The advanced medium range air-to-air missile (AMRAAM) is an AIM-7 Sparrow follow-on air superiority missile, with significant improvements in operational utility and combat effectiveness. Key features which will improve operational utility include; high average missile velocity, more range than the Sparrow, increased maneuverability, multiple target attack, and launch and leave capabilities. The AMRAAM is designed to be compatible with the F-14, F-15, F-16, F-18 and appropriate NATO aircraft. The FY 1984 request contains funds for advance procurement of long lead components and manufacturer tooling. The FY 1985 request is for initial procurement of 224 missiles (RDT&E PE 64314F, 27163F)

STINGER - STINGER is a man-portable, shoulder fired, anti-aircraft missile system for low altitude, short range air defense. The FY 1984 request will procure 108 missile systems. FY 1985 funds procure an additional 108 missile systems and completes the program. (No RDT&E)

Target Drones - Target Drones are remotely piloted vehicles which are used to simulate subsonic and supersonic enemy aircraft. They are used to develop air-to-air missile tactics, train aircrews, and to test and evaluate aircraft and missile weapon systems. The funds requested in FY 1984 and FY 1985 will provide for the continued procurement of full scale and sub-scale maneuvering target drones. (RDT&E PE 64211F, 35116F)

Tactical Drones - Details for tactical drones are classified and are contained in other backup material.

HARPOON - The HARPOON is a radar guided anti-ship missile planned for use on B-52 aircraft to provide sea lane control. FY 1985 funds will initiate and complete the procurement of 50 missiles. (No RDT&E)

The following table summarizes Other Missiles requirements:

	(In Thousands of Dollars)			
<u>Weapon System</u>	<u>FY 1982</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>
Air Launched Cruise Missile (ALCM)	\$ 587,600	\$ 544,200	\$ 90,376	\$ 82,417
Ground Launched Cruise Missile (GLCM)	327,900	449,900	604,642	534,304
AIM-7F/M Sparrow	210,700	197,200	183,692	-
AIM-9L/M Sidewinder	130,800	113,800	104,877	-
AGM-65D Maverick	218,200	243,400	346,665	711,647
AGM-88A Harm	87,000	111,600	177,964	327,609
Rapier	148,050	148,000	62,900	39,600
Advanced Medium Range Air-to-Air Missile (AMRAAM)			62,639	427,354
Stinger			4,901	4,858
Target Drones	18,380	40,000	29,977	39,774
Tactical Drones		24,200	48,797	38,887
Harpoon				40,425
 TOTAL BUDGET ACTIVITY	 \$1,728,630	 \$1,872,300	 \$1,717,430	 \$2,246,875

ACTIVITY: 3. Modification of In-service Missiles

(In Thousands of Dollars)  
Program Requirements - FY 1985 - \$153,674  
Program Requirements - FY 1984 - 135,650  
Program Requirements - FY 1983 - 91,300  
Program Requirements - FY 1982 - 82,452

PART I - PURPOSE AND SCOPE

This activity provides for modification of missile systems and drones, direct ground support equipment, missile training equipment, and components for this equipment. These costs include modification kits, revised handbooks, and engineering effort. These programs are designed to improve reliability, enhance performance, and increase maintainability by incorporating approved modifications resulting from technical advances, service use, and continuing test programs.

PART II - JUSTIFICATION OF FUNDS REQUESTED

The FY 1984 modification program consists of missile systems Class IV and V modifications which are necessary for safety improvements, extension of service life, or to incorporate operational improvements after a missile has been placed in the inventory. Several update modifications are programmed to convert missiles to the production line configuration. Advances in technology and longer service life necessitate the modification of in-service missile systems to enable the strategic, tactical, and support forces to maintain superiority over hostile forces.

Class IV Modification (FY 1984, \$84,404; FY 1985, \$115,116). The FY 1984 program will provide for modifications to improve reliability, maintainability, and extend service life of the AIM-9 Sidewinder and LGM-30 MINUTEMAN. Major efforts include the continuation of efforts begun in FY 1983 to insure the logistics support of the MINUTEMAN II guidance unit and MINUTEMAN Launch Facility and Launch Control Facility security systems. The FY 1985 program will continue modifications on these systems.

Class V Modifications

LGM-30 F/G MINUTEMAN II/III (FY 1984, \$23,385). This program provides for the procurement of lithium batteries for installation into 200 Minuteman III silos to extend the amount of time that emergency survivable power is available to launch Minuteman missiles.

Air Launch Cruise Missile (FY 1984, \$5,842; FY 1985 \$11,698). This program provides for the procurement of modifications kits to make the Air Launched Cruise Missile support equipment compatible with the new B-52H Common Strategic Rotary Launcher.

Update

AIM-7F Sparrow Update - (FY 1984, \$2,501). This program corrects deficiencies identified in AIM-7F initial operational test and evaluation.

GLCM Update - (FY 1984, \$19,518; FY 1985, \$26,860). This program will correct deficiencies on missiles revealed during initial operational test and evaluation.

The following table summarizes modification requirements:

<u>REQUIREMENT</u>	<u>FY 1982</u>	(In Thousands of Dollars)			<u>FY 1985</u>
		<u>FY 1983</u>	<u>FY 1984</u>		
Class IV Modifications	\$ 33,916	\$ 45,119	\$ 84,404		\$ 115,116
Class V Modifications:					
LGM-30 F/G MINUTEMAN II/III	34,900	34,900	23,385		
AGM-86B Air Launched Cruise Missile			5,842		11,698
Update:					
AIM-7F Sparrow	13,636	7,691	2,501		
BGM-109 Ground Launched Cruise Missile		3,590	19,518		26,860
TOTAL BUDGET ACTIVITY	\$ 82,452	\$ 91,300	\$ 135,650		\$ 153,674

ACTIVITY: 4. Spares and Repair Parts

(In Thousands of Dollars)  
Program Requirements - FY 1985 - \$430,710  
Program Requirements - FY 1984 - 356,809  
Program Requirements - FY 1983 - 208,200  
Program Requirements - FY1982 - 199,850

PART I - PURPOSE AND SCOPE

This activity provides for procurement of initial and replenishment spares and repair parts for ballistic missiles, other missiles, target drones, peculiar support equipment, training equipment, replacement equipment, provisioning documentation, and spares for modification programs.

PART II - JUSTIFICATION OF FUNDS REQUESTED

The funds for FY 1984 and FY 1985 will provide for the procurement of initial spares, replacement equipment, and replenishment spares. Initial spares are investment type items normally procured in support of the weapon system delivery schedule. Replacement equipment includes peculiar support equipment in support of out-of-production systems, equipment common to several systems, and equipment required by specialized repair activities. Replenishment spares include components and repair parts required for the continued support of missiles, drones and related support equipment maintained in the operational inventory. The FY 1984/85 requirements for spares and repair parts were developed by detailed provisioning actions which consider operational deployment of the end item, usage rate trends and, for time-change items, the service life of the weapon system.

The breakdown of Spares and Repair Parts requirements follows:

	<u>FY 1982</u>	<u>FY 1983</u>	(In Thousands of Dollars) <u>FY 1984</u>	<u>FY 1985</u>
<u>INITIAL SPARES (I/S)</u>				
Minuteman	\$ 519	\$	\$ 97,829	\$ 49,939
Peacekeeper	9,545	11,000	13,561	6,640
Air Launched Cruise Missile	22,554	8,636	12,102	9,327
Ground Launched Cruise Missile	11,585	9,700	3,501	
Sparrow	6,037	1,000	974	
Sidewinder	3,961	5,500	3,118	8,477
Maverick	4,000	4,000	7,698	13,505
HARM				18,541
AMRAAM	1,021	4,357	1,266	682
Target Drones				
TOTAL	59,222	44,193	140,049	107,111
Modification I/S	4,638	9,110	3,605	3,034
Replacement Equipment	45,190	50,904	68,657	59,196
Replenishment Spares	90,800	103,993	144,498	261,369
TOTAL SPARES & REPAIR PARTS	\$ 199,850	\$ 208,200	\$ 356,809	\$ 430,710

ACTIVITY: 5. Other Support

(In Thousands of Dollars)  
Program Requirements - FY 1985 - \$4,896,189  
Program Requirements - FY 1984 - 3,560,028  
Program Requirements - FY 1983 - 2,786,900  
Program Requirements - FY 1982 - 2,390,313

PART I - PURPOSE AND SCOPE

This activity provides for industrial facilities, space programs, and special programs. Industrial facilities provide for expansion or modification of government-owned production facilities, nonrecurring maintenance and modernization of machine tools and equipment, preparation, crating, and shipping of government tools, improved manufacturing methods, and environmental protection measures instituted at government-owned plants. Space programs provide launch vehicles, space vehicles, peculiar ground support equipment, and miscellaneous launch support requirements other than those chargeable to the Operations and Maintenance appropriation.

PART II - JUSTIFICATION OF FUNDS REQUESTED

The FY 1984 budget request of \$3,560,028 includes \$1,180,941 for operational space programs, \$33,495 for industrial facilities, and \$2,345,592 for special programs. The FY 1985 request for authorization of \$4,896,189 includes \$1,546,440 for operational space programs, \$34,054 for industrial facilities and \$3,315,695 for special programs.

COMSEC - This program supports the national objective of providing communications security on all critical spaceborne communications systems. Tasks under this program apply technology to develop COMSEC products for use in Air Force weapon systems, and supports the Air Force Security Service Tempest Testing and Analysis program. This program is an integral part of the national COMSEC program, which is administered by the National Security Agency. The FY 1984 and FY 1985 funds provide for the procurement of peculiar communications equipment for the program. (RDT&E PE 33401F)

NAVSTAR Global Positioning System (GPS) - The operational NAVSTAR GPS will consist of 18 satellites, a ground control station and approximately 20,000 sets of user equipment for all services. Each user will be able to precisely determine his position (to better than 16 meters average accuracy) and velocity (to a few centimeters per second), in three dimensions, anywhere in the world, unimpaired by weather. The FY 1984 and FY 1985 funds provide for continuation of the 28 satellite multiyear procurement. (RDT&E PE 64778F, 35165F)



Space Launch Support - The Space Launch Support program provides the Inertial Upper Stages (IUS), Payload Assist Modules-Delta class (PAM-D), and spares support for all Air Force operational space programs (excluding Support Missions) launching on the Space Shuttle. Operational programs include the Defense Support Program, the Defense Satellite Communications System, and the NAVSTAR Global Positioning System. The funds requested in Fiscal Year 1984 will be used to procure one PAM-D upper stage, to procure three IUSs, and to procure IUS shipping, spares, and software support items. It also procures necessary spares for Interface Verification Equipment, Airborne Support Equipment, and the Vandenberg Air Force Base Shuttle launch processing system. In Fiscal Year 1985 funds will be requested to fund six PAM-D stages to support operational launch requirements; to provide necessary spares for Interface Verification Equipment, Airborne Support Equipment, and the Vandenberg AFB Shuttle launch processing system; and to procure IUS support items including spares and software and solid motors for an accelerated aging test. (RDT&E PE 64411F, 35171F)

Satellite Data System (SDS) - The SDS is a multi-purpose communications system which in conjunction with the Navy Fleet Satellite Communications Program (FLTSATCOM) has the high priority mission of supporting communications for the strategic forces. SDS also supports communications between Air Force Satellite Control Facility ground stations. The FY 1984 funds will provide a continuing replenishment launch capability and satellite configuration testing. The FY 1985 request for authorization is for sustaining the capability for launch replenishment and satellite configuration testing. (RDT&E PE 35158F)

Defense Meteorological Satellite Program (DMSP) - DMSP is a joint service program which is DOD's most important single source of weather data. It is an advanced weather satellite system which supports both strategic and tactical missions. DMSP satellites provide worldwide, high quality visual and infrared cloud imagery and other specialized meteorological data four times a day. Worldwide data are provided to the Air Force Global Weather Central at Offutt AFB, Nebraska, and to the Navy's Fleet Numerical Weather Central at Monterey, California. Local area cloud imagery data are transmitted for immediate use directly from the satellites to mobile Air Force and Navy tactical receiving terminals at key worldwide operating locations and onboard aircraft carriers at sea. In Fiscal Year 1984, the funding requested will provide for production spares for Space Booster refurbishment. Fiscal Year 1985 funding will be requested to complete the multiyear procurement of four satellites. (RDT&E PE 35160F)

Defense Support Program (DSP) - The DSP satellites contain sensors which provide near real-time data to the National Command Authorities and other designated users. The FY 1984 funds will procure two satellites for which the long lead items were procured in FY 1982. (RDTE PE 12431F)

Defense Satellite Communications System (DSCS) - The DSCS provides Super High Frequency (SHF) satellite communications for secure voice and high data rate transmissions. It satisfies unique and vital national security communications requirements for worldwide military command and control, crises management and relay of intelligence, early warning data, treaty monitoring and surveillance information and diplomatic traffic. The DSCS program consists of a space segment, which is an Air Force responsibility, a multi-user terminal segment for ground, airborne, and naval elements, and an operational control segment. The authorized DSCS space segment consists of four operational and two in-orbit spare satellites positioned in geosynchronous orbits to provide global (less polar) coverage. Existing DSCS II satellites will be replenished with DSCS III satellites. DSCS III provides increased capacity, flexibility, and anti-jam capability. DSCS III satellites will include an Air Force Satellite Communications System single channel transponder for Emergency Action Message dissemination. The FY 1983 funds provided for the acquisition of two DSCS III production satellites and associated launch vehicle support. The FY 1984 funds provide advance procurement of parts for four DSCS III satellites to be procured in FY 1985. The FY 1984 funds also provide for refurbishing the DSCS qualification satellite to a Space Shuttle/Inertial Upper Stage configuration for a paired launch with one of the production satellites. In FY 1985 four DSCS III satellites are procured and launch vehicle support is provided. (RDT&E PE 33110F)

Air Force Satellite Communications System (AFSATCOM) - The AFSATCOM system is a satellite based Ultra High Frequency Communications System. The AFSATCOM transponders are carried as payloads on host spacecraft. The AFSATCOM system provides communications between the National Command Authorities, the JCS, the military CINC's and the nuclear capable forces. The FY 1984 request procures one transponder for a classified host. The FY 1985 request provides funding for contractor engineering support required for launch. (RDT&E PE 33601F)

Space Boosters - The Space Boosters program provides an austere expendable launch vehicle backup to guarantee the launch of critical USAF operational payloads in the event that the Space Shuttle program is delayed or the orbiter fleet is grounded. It also provides for the maintenance of critical Titan III production capability until the operational capability of the Space Shuttle is assured. FY 1983 funds request will accomplish specific production phaseout efforts. FY 1985 funds will also support planned production phaseout. (RDT&E PE 35119F)

Space Defense (Anti-satellite) System - This is the U.S. anti-satellite system. It will utilize a Miniature Vehicle (MV) final stage to kill target satellites, a two stage air-launched SRAM/Altair missile to boost the MV to target altitudes, and a modified air defense F-15 to launch the missile. The system will be deployed at two CONUS air defense bases. FY 1984 funds are requested for procurement of sensor assembly test benches, special test equipment, and to qualify second sources for specific components. In FY 1985, funds are programmed for procurement of the first operational SRAM/Altair/MV. (RDTE PE 64406F, 12450F)

Space Shuttle - The Space Shuttle is a NASA development program to provide an advanced, reusable, manned orbiter vehicle which will be capable of transporting payloads to low earth orbit. To carry payloads to higher operational orbits, the Air Force will build an unmanned Inertial Upper Stage (IUS). By Executive direction, the Air Force will: 1) provide a shuttle launch and landing capability at Vandenberg AFB, CA; 2) develop the Inertial Upper Stage; 3) transition DOD payloads to the shuttle; 4) support NASA development efforts and make sure the shuttle meets DOD requirements. The IUS, procured for DOD launches under the Space Launch Support line item, will be used by both DOD and NASA. The funds requested for FY 1984 and FY 1985 provide for the procurement of common and unique support equipment for: (1) the Vandenberg AFB Shuttle launch site, (2) the integration and on-orbit support of DOD payloads flown in the Shuttle, and (3) for the modification of various NASA facilities to allow classified operations. (RDT&E PE 64411F, 12449F)

A summary of the funding requirements for space programs is as follows:

	<u>FY 1982</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>
COMSEC	\$ 19,400	\$ 12,977	\$ 23,672	\$ 32,714
NAVSTAR GPS	20,100	101,400	238,621	299,641
Space Launch Support	68,600	152,700	140,190	258,815
Satellite Data System	41,750	22,318	25,223	
Defense Meteorological Satellite Program	36,550	166,800	33,908	147,393
Defense Support Program	241,400	404,900	356,930	35,836
Defense Satellite Communications System	129,650	181,600	117,004	398,054
Air Force Satellite Communications System		28,400	30,693	13,994
Space Boosters	67,050	70,700		25,290
Space Defense System			19,409	196,942
Space Shuttle	193,900	134,954	195,291	137,761
<b>TOTAL SPACE PROGRAMS</b>	<b>\$ 818,400</b>	<b>\$1,276,749</b>	<b>\$1,180,941</b>	<b>\$1,546,440</b>

Industrial Facilities (FY 84, \$33,495; FY 85, \$34,054). This is a continuing program with government owned properties which includes requirements for plant expansions; packing and crating, and handling of plant equipment; rehabilitation; environmental protection; manufacturing methods; and energy conservation.

Special Programs (FY 84, \$2,345,592; FY 85, \$3,315,695). Special Program requirements are of a sensitive nature requiring special access.

COMPARISON OF FY 1983 PROGRAM REQUIREMENTS AS REFLECTED  
IN FY 1983 BUDGET WITH FY 1983 PROGRAM REQUIREMENTS AS  
SHOWN IN FY 1984 BUDGET

SUMMARY OF PROGRAM REQUIREMENTS

	(In Thousands of Dollars)		
	Program Requirements Per 1983 Budget	Program Requirements Per 1984 Budget	Increase (+) or Decrease (-)
Ballistic Missiles	\$ 1,446,400	\$ -0-	\$ -1,446,400
Other Missiles	2,139,200	1,872,300	-266,900
Modification of In-Service Missiles	160,000	91,300	-68,700
Spares and Repair Parts	274,000	208,200	-65,800
Other Support	2,776,300	2,786,900	+10,600
Reimbursable Program	180,000	251,300	+71,300
 Total Fiscal Year Program	 \$ 6,975,900	 \$ 5,210,000	 \$ -1,765,900

EXPLANATION BY BUDGET ACTIVITY

1. Ballistic Missiles (\$-1,446,400) Congress removed the funds for the Peacekeeper missile (\$1,446,400).
2. Other Missiles (\$-266,900) Congress made specific adjustments of (\$-278,200). In addition, a reduction of (\$-12,900) was made a portion of general adjustments levied by the Congress. These reductions were offset by an increase of (\$+24,200) for Tactical Drones.
3. Modification of In-Service Missiles (\$-68,700) Specific Congressional adjustments total (\$-68,000). An additional adjustment of (\$-700) was made as a share of general Congressional reductions.
4. Spares and Repair Parts (\$-65,800) Specific Congressional adjustments total (\$-64,400). Additional general Congressional reductions total (\$-1,400).
5. Other Support (\$+10,600) Congress reduced DSCS by (\$-10,000) and increased Special Programs by (\$+29,400). Additional Congressional general reductions were (\$-8,800).

COMPARISON OF FY 1983 FINANCING AS REFLECTED  
IN FY 1983 BUDGET WITH FY 1983 FINANCING AS  
SHOWN IN FY 1984 BUDGET

	Financing Per FY 1983 Amended Budget	(In Thousands of Dollars) Financing Per FY 1984 Budget	Increase (+) or Decrease (-)
Program Requirements.....	6,975,900	5,210,000 -	-1,765,900
Program requirements (Service Account).....	6,795,900	4,958,700	-1,837,200
Program requirements (Reimbursable).....	180,000	251,300	+71,300
Less:			
Anticipated Reimbursements.....	180,000	251,300	+71,300
Reappropriation.....	-	15,000	+15,000
Transfer from other accounts.....	-	24,200	+24,200
Add:			
Reallocation pursuant to P.L. 97-377.....	-	21,600	+21,600
Appropriation.....	6,795,900	4,941,100	-1,854,800

EXPLANATION OF CHANGES IN FINANCING

The Fiscal Year 1983 program has decreased \$1,765,900 thousand since submission of the FY 1983 budget. Adjustments by category are explained below:

1. Anticipated Reimbursements. The increase is due to a revised estimate of customer orders.
2. Reappropriation. The increase is due to a Congressionally directed transfer of FY 1982 unobligated balances for Special Update Programs.

3. Transfer from Other Accounts. The increase will be reprogramed from other accounts for procurement of tactical drones.

4. Reduction pursuant to P.L. 97-377. The increase of \$21,600 thousand is a Congressionally directed reduction (\$-11.6 million) in Other Missiles, (\$-.6 million) in Modification of In-Service Missiles, (\$-1.3 million) in Spares and Repair Parts, and (\$-8.1 million) in Other Support.

COMPARISON OF FY 1982 PROGRAM REQUIREMENTS AS REFLECTED  
IN FY 1983 BUDGET WITH FY 1982 PROGRAM REQUIREMENTS AS  
SHOWN IN FY 1984 BUDGET

SUMMARY OF PROGRAM REQUIREMENTS

	(In Thousands of Dollars)		
	Program Requirements Per 1983 Budget	Program Requirements Per 1984 Budget	Increase (+) or Decrease (-)
Ballistic Missiles	\$ 110,762	\$ 94,800	\$ -15,962
Other Missiles	1,734,617	1,728,630	-5,987
Modification of In-Service Missiles	80,652	82,452	+1,800
Spares and Repair Parts	209,768	199,850	-9,918
Other Support	2,438,151	2,390,918	-47,233
Reimbursable Program	163,000	101,237	-61,763
Total Fiscal Year Program	\$ 4,736,950	\$ 4,597,887	\$ -139,063

EXPLANATION BY BUDGET ACTIVITY

1. Ballistic Missiles (\$-15,962) Reprogramming to the RDT&E appropriation (\$-14,100) and other minor adjustments (\$-1,862).
2. Other Missiles (\$-5,987) Maverick reduced (\$-10,000) for FY 82 Supplemental and (\$-3,000) transferred to Other Support. HARM reduced (\$-2,000) and Sidewinder reduced (\$-1,000) and transferred to Industrial Facilities; (\$+8,950) transferred to Rapier from Spares and Repair Parts; other adjustments (\$+1,063).
3. Modification of In-Service Missiles (\$+1,800) Minor adjustments.
4. Spares and Repair Parts (\$-9,918) Transfer to Rapier (\$-8,950); minor adjustments (\$-968).
5. Other Support (\$-47,233) Transfer from Other Missiles (\$+6,000); reprogramming to the RDT&E appropriation (\$-38,800); a reduction in the Space Launch Support program (\$-14,400); other minor adjustments (\$-33).



COMPARISON OF FY 1982 FINANCING AS REFLECTED  
IN FY 1983 BUDGET WITH FY 1982 FINANCING AS  
SHOWN IN THE FY 1984 BUDGET

	(In Thousands of Dollars) Financing Per FY 1983 Budget	Financing Per FY 1984 Budget	Increase (+) on Decrease (-)
Program Requirements.....	4,736,950	4,597,887	-139,063
Program Requirements (Service Account).....	4,573,950	4,496,650	-77,300
Program Requirements (Reimbursable).....	163,000	101,237	-61,763
Less:			
Anticipated Reimbursements.....	163,000	101,237	-61,763
Reappropriation.....	14,400	-	-14,400
Add:			
Transfers to Other Accounts.....	-	27,000	+27,000
Unobligated Balance to Finance Subsequent Year Budget Plans.....	-	35,900	+35,900
Appropriation.....	4,559,550	4,559,550	-

EXPLANATION OF CHANGES IN FINANCING

The fiscal year 1982 proram has decreased \$139,063 thousand since submission of the FY 1983 budget. Adjustments by category are explained below:

1. Anticipated Reimbursements. The decrease of \$61,763 thousand is due to receipt of fewer customer orders than anticipated.

2. Reappropriation. The decrease of \$14,400 thousand is due to disapproval of a proposed reprogramming from FY 1982 RDT&E, AF to FY 1982 Missile Procurement, AF for Space Launch Support.

3. Transfers to Other Accounts. The increase of \$27,000 thousand is due to an approved reprogramming of \$10,000 million from FY 1982 Missile Procurement, AF to O&M, AF as part of the Supplemental, and an approved reprogramming from FY 1982 Missile Procurement, AF to RDT&E, AF for Space Shuttle (\$10.6 million) and Space Boosters (\$6.4 million).

4. Unobligated Balance. The increase of \$35,900 thousand is based on year-end closeout and certification in accordance with DD Form 1176.

MODIFICATION OF MISSILES  
FY-84 PROGRAM

FY-84 APPROPRIATION: MISSILE PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: MINUTEMAN EXTENDED SURVIVABLE POWER, MN-2989

MODELS OF MISSILES AFFECTED: LGM-306 (MM III)

DESCRIPTION/JUSTIFICATION: INSTALLS FOUR LITHIUM BATTERIES IN PLACE OF HALF OF THE LEAD ACID BATTERIES IN EACH OF THE 200 MM III WS-133B SILOS. THIS EXTENDS BY A FACTOR OF 15 THE AMOUNT OF TIME THAT EMERGENCY SURVIVABLE POWER IS AVAILABLE TO LAUNCH THESE MISSILES, THEREBY EXPANDING THE STRATEGIC RESPONSE OPTIONS AVAILABLE.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	30	36.9	105	34.9	80	23.4					215	95.2
BASIS FOR COST ESTIMATE:												
NONRECURRING	15	25.2		2.5							15	27.7
KITS	15	8.6	105	30.9	80	22.4					200	61.9
DATA		.4		.6		.2						1.2
TRAINING		.5		.4								.9
SUPPORT EQUIP.		2.2		.5		.8						3.5
TOTAL	30	36.9	105	34.9	80	23.4					215	95.2

METHOD OF IMPLEMENTATION: INSTALLATION - CONTRACTOR/FIELD TEAM  
LEAD TIME - 18 MONTHS

**MODIFICATION OF MISSILES  
FY-84 PROGRAM**

**FY-84 APPROPRIATION:** MISSILE PROCUREMENT, AIR FORCE

**MODIFICATION TITLE AND NO:** SECURITY SYSTEM RETROFIT, MN-10505B

**MODELS OF MISSILES AFFECTED:** LGM-30F/G, WING I SQD 20, WING VI

**DESCRIPTION/JUSTIFICATION:** REPLACE AND UPDATE THE PRESENT SECURITY SYSTEM AT WINGS I AND VI WITH AND UPDATED SECURITY SYSTEM. THE FALSE ALARM RATES WITH THE PRESENT SYSTEM ARE EXCESSIVE, RESULTING IN AN UNSUPPORTABLE WORKLOAD AND HIGH COSTS TO STRATEGIC AIR COMMAND. THE FALSE ALARM RATES WILL BE REDUCED IN EXCESS OF 80 PERCENT BY REPLACEMENT WITH THE UPDATED SYSTEM.

**SCOPE OF PROGRAM:**

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	10	11.2			155	12.6	190	16.0			355	39.8

**BASIS FOR COST ESTIMATE:**

NONRECURRING	10	8.0									10	8.0
KITS					155	12.6	190	16.0			345	28.6
DATA		.8										.8
TRAINER		2.4										2.4
<b>TOTAL</b>	<b>10</b>	<b>11.2</b>			<b>155</b>	<b>12.6</b>	<b>190</b>	<b>16.0</b>			<b>355</b>	<b>39.8</b>

**METHOD OF IMPLEMENTATION:** INSTALLATION - DEPOT  
LEAD TIME - 12 MONTHS

MODIFICATION OF MISSILES  
FY-84 PROGRAM

FY-84 APPROPRIATION: MISSILE PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: NS-17 UPGRADE, MN-105203

MODELS OF MISSILES AFFECTED: LGM-30F

DESCRIPTION/JUSTIFICATION: THE PRODUCTION OF REPLACEMENT PARTS FOR THE NS-17 GUIDANCE AND CONTROL SYSTEM WAS DEACTIVATED IN 1975. THE AIR FORCE PURCHASED 10 YEARS OF HARDNESS CRITICAL PARTS TO SUSTAIN THE SYSTEM THROUGH 1985. THE NS-17 HAS BEEN USING THESE HARDNESS CRITICAL PARTS AT AN INCREASING RATE AND SUPPORT OF THE SYSTEM IN THE FY-84-85 TIME FRAME IS QUESTIONABLE. THIS MODIFICATION WILL DECREASE HARDNESS CRITICAL PARTS REQUIREMENTS TO ASSURE CONTINUING SUPPORTABILITY OF THE MINUTEMAN II WEAPON SYSTEM.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	1	15.3	1	5.4	30	27.7	160	41.7	400	111.6	592	201.7
BASIS FOR COST ESTIMATE:												
NONRECURRING	1	15.3	1	5.4							2	20.7
KITS					30	12.6	160	41.7	400	111.6	590	165.9
DATA						3.0						3.0
SUPPORT EQUIP.						12.1						12.1
TOTAL	1	15.3	1	5.4	30	27.7	160	41.7	400	111.6	592	201.7

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT  
LEAD TIME - 12 MONTHS

MODIFICATION OF MISSILES  
FY-84 PROGRAM

FY-84 APPROPRIATION: MISSILE PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: HARDENED INTERSITE CABLE SYSTEM, MN-11501B

MODELS OF MISSILES AFFECTED: LGM-30

DESCRIPTION/JUSTIFICATION: THE HARDENED INTERSITE CABLE SYSTEM AND ITS ASSOCIATED SUBSYSTEMS HAVE DEGRADED TO A POINT THAT PIECEMEAL CORRECTIVE ACTIONS CANNOT SUSTAIN THE SYSTEM. MODIFICATION WILL INCLUDE REDESIGN OF PRESSURE CIRCUITS, INSTALLATION OF ABOVE GROUND PRESSURE CONTACTS, INSTALLATION OF POLE MOUNTED COMPRESSORS AND A MODIFIED FAULT ALARM SYSTEM.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	53	6.2	1708	7.8	1452	3.6	1358	6.2			4571	23.8
BASIS FOR COST ESTIMATE:												
NONRECURRING	53	6.0		.3							53	6.3
KITS			1708	7.2	1452	3.6	1358	6.2			4518	17.0
DATA		.2		.3								.5
TOTAL	53	6.2	1708	7.8	1452	3.6	1358	6.2			4571	23.8

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT  
LEAD TIME - 15 MONTHS

MODIFICATION OF MISSILES  
FY-84 PROGRAM

FY-84 APPROPRIATION: MISSILE PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: MISSILE PROCEDURES TRAINER UPGRADE, MN-11507a

MODELS OF MISSILES AFFECTED: LGM-30

DESCRIPTION/JUSTIFICATION: MODIFICATION WILL REPLACE CONTROL MONITOR PROCEDURES TRAINERS (CMPT) COMPUTER AND VIDEO DISPLAY TERMINALS (VDT) WITH SUPPORTABLE OFF-THE-SHELF STATE-OF-THE-ART UNITS. THE COMPUTER AND VDT'S CURRENTLY IN USE ARE NO LONGER BEING MANUFACTURED AND SOME COMPONENTS ARE NO LONGER SUPPORTABLE.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
					21	4.2					21	4.2
					3	2.0					3	2.0
					18	1.2					18	1.2
						1.0						1.0
TOTAL					21	4.2					21	4.2

BASIS FOR COST ESTIMATE:

NONRECURRING  
KITS  
DATA

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT  
LEAD TIME - 16 MONTHS

MODIFICATION OF MISSILES  
FY-84 PROGRAM

FY-84 APPROPRIATION: MISSILE PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: HF HARD ANTENNA SYSTEM, MN-12505B

MODELS OF MISSILES AFFECTED: LGM-30

DESCRIPTION/JUSTIFICATION: DUE TO AGE, AND ADVANCED STATE-OF-THE-ART, THE PRESENT HF ANTENNA SYSTEMS HAVE BECOME NON-SUPPORTABLE. THE PROGRAM WILL REPLACE THE CURRENT SYSTEM WITH A HARDENED, BROADBAND ANTENNA WHICH IS TUNABLE TO ASSIGNED FREQUENCIES. FAILURE OF EQUIPMENT WOULD RESULT IN NO POST-ATTACK HF COMMUNICATION CAPABILITIES.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
			3	4.9	39	3.0	61	4.7			103	12.6
BASIS FOR COST ESTIMATE:												
NONRECURRING			3	4.5				.5			3	5.0
KITS					39	2.8	61	3.9			100	6.7
DATA				.3		.1		*				.4
SUPPORT EQUIP.				.1		.1		.3				.5
TOTAL			3	4.9	39	3.0	61	4.7			103	12.6

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT  
LEAD TIME - 6 MONTHS



MODIFICATION OF MISSILES  
FY-84 PROGRAM

FY-84 APPROPRIATION: MISSILE PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: GUIDANCE COOLING UNIT, MN-12508B

MODELS OF MISSILES AFFECTED: LGM-30

DESCRIPTION/JUSTIFICATION: THIS PROGRAM WILL MODIFY THE EXISTING GUIDANCE AND CONTROL COOLER AMPLIFIERS TO INSURE PROPER OPERATION OF THE MISSILE GUIDANCE SET COOLING SYSTEM FLOW CONTROL VALVE. STRATEGIC AIR COMMAND (SAC) HAS BEEN EXPERIENCING EXCESSIVE SITE DEGRADES BECAUSE OF THIS AMPLIFIER PROBLEM.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	166	4.1	274	7.5	137	4.2	108	3.3			685	19.1
BASIS FOR COST ESTIMATE:												
NONRECURRING		.1										.1
KITS	166	3.9	274	7.0	137	4.2	108	3.3			685	18.4
DATA		.1										.1
TRAINER				.5								.5
TOTAL	166	4.1	274	7.5	137	4.2	108	3.3			685	19.1

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/FIELD TEAM  
LEAD TIME - 18 MONTHS

DATE 01/24/83

MODIFICATION OF MISSILES  
FY 1984 PROGRAM

FY 1984 PRESIDENT'S BUDGET

APPROPRIATION: MISSILE PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: WING II G&C COOLING SYSTEM, MN-13507B

MODELS OF MISSILES AFFECTED: LGM-30

DESCRIPTION/JUSTIFICATION: THIS MODIFICATION REPLACES THE CURRENT GUIDANCE AND CONTROL (G&C) COOLING SYSTEM AT WING II. THE THERMO ELECTRIC (TE) CHILLER CURRENTLY INSTALLED IS NO LONGER PROCURABLE. IN ADDITION TO THE TE CHILLER, THE GUIDANCE AND CONTROL (G&C) CHILLER CAN ONLY BE SUPPORTED THRU 1984 DUE TO NON-AVAILABILITY OF THE COMPRESSOR. A NEW COOLING SYSTEM WILL BE INSTALLED TO MEET WING II REQUIREMENTS.

DEVELOPMENT STATUS: CCB AUG 82, CONTRACT FY2/83.

PROJECTED FINANCIAL PLAN:

	FY-83		FY-84		FY-85		FY-86		T O T A L	
	QTY	AMT	QTY	AMT	QTY	AMT	QTY	AMT	QTY	AMT
BASIS FOR COST	55	5.4	34	5.1	18	1.1			160	11.6
ESTIMATE:										
NONRECURRING		.5								.5
RITS	55	3.5	34	5.1	18	1.1			160	9.7
DATA		.3								.3
SIMULATORS		1.1								1.1
TOTAL COST	55	5.4	34	5.1	18	1.1			160	11.6
(P-1100)										
INSTALLATION:					66	.7	94	1.0	160	1.7

METHOD OF IMPLEMENTATION: INSTALLATION -- POT  
LEAD TIME -- 20 MONTHS

MODIFICATION OF MISSILES  
FY-84 PROGRAM

FY-84 APPROPRIATION: MISSILE PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: CODER/DECODER DRAWER UPDATE, MN-510708

MODELS OF MISSILES AFFECTED: LGM-30

DESCRIPTION/JUSTIFICATION: THE A2 CARD USED IN THE CODER/DECODER INDICATOR (CDI) DRAWER, SUPPLIES POWER TO THE SECURE DATA UNIT (SDU) AND INDICATOR LIGHTS. THE SDU PROVIDES ENCRYPTION/DECRYPTION FOR THE ENCRYPTED DATA COMMUNICATION SYSTEM USED BETWEEN LCFS AND LCF TO LF. BECAUSE OF BOTH AGING AND DESIGN, A2 CARDS ARE BECOMING UNSTABLE AND INCREASED FAILURE RATE EXPERIENCED. THE A2 CARD WILL BE MODIFIED/REDESIGNED IN ORDER TO PROVIDE A STABLE POWER SOURCE FOR THE SDU. THE A2 CARD IS THE KEYSTONE FOR ENCRYPTED DATA TRAFFIC IN THE SDU. IF A2 CARD RELIABILITY CONTINUES TO FALL, ENCRYPTED DATA COMMUNICATION FOR MISSILE LAUNCHING, TARGETING AND MONITORING CAN BE IMPAIRED.

SCOPE OF PROGRAM:

PRICE		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
		1	.6	98	.7					99	1.3

BASIS FOR COST ESTIMATE:

NONRECURRING		1	.0							1	.6
KITS				98	.7					98	.7
TOTAL		1	.6	98	.7					99	1.3

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT  
LEAD TIME - 6 MONTHS

# MODIFICATION OF MISSILES

FY 1984 PROGRAM

FY 1984 PRESIDENT'S BUDGET

APPROPRIATION: MISSILE PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: COMPRESSOR FAILURE MONITOR, 4N-520695

MODELS OF MISSILES AFFECTED: LCM-30

DESCRIPTION/JUSTIFICATION: A MISSILE GUIDANCE SET (MGS) ELECTRICAL OVERSTRESS OCCURS AT WING I, SQUADRON 29 WHEN THE POWER SUPPLY FAILS. THIS POWER SUPPLY FAILURE FOLLOWS A PREDICTABLE PATTERN WHEN COMMERCIAL POWER SURGES OCCUR. A SURGE MONITOR WILL BE INSTALLED WHICH WILL SHUT DOWN THE SYSTEM IN TIME TO ELIMINATE FAILURES.

DEVELOPMENT STATUS: EOP OCT 82; CCB MAY 83; CONTRACT FY 1/84.

## PROJECTED FINANCIAL PLAN:

	FY-84		FY-85		FY-86		T O T A L	
	QTY	AMT	QTY	AMT	QTY	AMT	QTY	AMT
BASIS FOR COST ESTIMATE:								
NONRECURRING	1	.9					1	.9
TESTS	60	.9	140	2.2			200	3.1
DATA		.2						.2
SIMULATORS	(3)	.1					(3)	.1
TOTAL COST (P-1100)	61	2.1	140	2.2			201	4.3
INSTALLATION:			61	*	140	*	201	*

METHOD OF IMPLEMENTATION: INSTALLATION -- DEPOT  
LEAD TIME -- 12 MONTHS

INSTALLATION SCHEDULE:	FY-85				FY-86			
QUARTERS	1	2	3	4	1	2	3	4
INPUT			1	60	70	70		
OUTPUT			1	60	70	70		

MODIFICATION OF MISSILES  
FY 1984 PROGRAM

FY 1984 PRESIDENT'S BUDGET

APPROPRIATION: MISSILE PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: MK-1A PENETRATION AIDS

MODELS OF MISSILES AFFECTED: LGM-30

DESCRIPTION/JUSTIFICATION: COMPONENTS OF THE MINUTEMAN II, MK-1A PENETRATION AIDS SYSTEM ARE BECOMING LOGISTICALLY NON-SUPPORTABLE. THIS PROGRAM WILL REPLACE THE NON-SUPPORTABLE SYSTEMS WITH STATE-OF-THE-ART REPLACEMENT ITEMS.

DEVELOPMENT STATUS: ECP DUE OCT 83; CCB FY 2/84; CONTRACT FY 2/85.

PROJECTED FINANCIAL PLAN:

	FY-85		FY-86		FY-87		FY-88		T O T A L	
	QTY	AMT	QTY	AMT	QTY	AMT	QTY	AMT	QTY	AMT
BASIS FOR COST										
ESTIMATE:										
NONRECURRING										
KITS	5.0		125	8.0	175	10.0	175	10.0	475	28.0
DATA	3.0									3.0
TOTAL COST	8.0	125	8.0	175	10.0	175	10.0		475	36.0
(P-1100)										

METHOD OF IMPLEMENTATION: INSTALLATION -- ORG/INTERMEDIATE  
LEAD TIME -- 13 MONTHS

MODIFICATION OF MISSILES  
FY 1984 PROGRAM

FY 1984 PRESIDENT'S BUDGET

APPROPRIATION: MISSILE PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: INNER-ZONE SECURITY SYSTEMS

MODELS OF MISSILES AFFECTED: LCM-30

DESCRIPTION/JUSTIFICATION: THE CURRENT INNER-ZONE SECURITY SYSTEM WILL BE LOGISTICALLY NON-SUPPORTABLE BY 1985. MODIFICATION WILL CONSIST OF CHANGING OUTER ZONE ALARM CONTROL DRAWER CARDS WITH NEW SUPPORTABLE CARDS.

DEVELOPMENT STATUS: ENGINEERING STUDY CONTRACT OCT 82; ECP OCT 83; CCB JAN 84; CONTRACT FY 2/85.

PROJECTED FINANCIAL PLAN:

	FY-85		FY-86		T O T A L	
	QTY	AMT	QTY	AMT	QTY	AMT
BASIS FOR COST ESTIMATE:	200	15.0	800	51.1	1000	66.1
KITS	200	15.0	800	51.1	1000	66.1
TOTAL COST (P-1100)	200	15.0	800	51.1	1000	66.1

METHOD OF IMPLEMENTATION: INSTALLATION -- ORG/INTERMEDIATE  
LEAD TIME -- 18 MONTHS

**MODIFICATION OF MISSILES  
FY-84 PROGRAM**

**FY-84 APPROPRIATION: MISSILE PROCUREMENT, AIR FORCE**

**MODIFICATION TITLE AND NO: SOLID STATE GYRO BOARDS, MN-11619C**

**MODELS OF MISSILES AFFECTED: AIM-9**

**DESCRIPTION/JUSTIFICATION:** THE AIM-9P GYRO DRIVE ELECTRONICS BOARDS HAVE BEEN MODIFIED NUMEROUS TIMES (B TO J TO P) AND CONSIST OF MANY AGED COMPONENTS AND TUBE ELECTRONICS. A COMPLETELY SOLID STATE-HIGH RELIABILITY-INTERCHANGABLE GYRO DRIVE BOARD IS AVAILABLE. REPLACEMENT OF THE OLD, ANTIQUATED BOARDS WITH THE NEW, HIGH RELIABILITY BOARDS WILL PRODUCE A SIGNIFICANT SAVINGS IN REPAIR COSTS AND REPAIR TIME AND INCREASE THE MTBF AND RELIABILITY OF THIS FIRST LINE WEAPON.

**SCOPE OF PROGRAM:**

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	---	---	---	---	---	---	---	---	---	---	---	---
			1400	1.4	3600	3.5	500	.5			5500	5.4
<b>BASIS FOR COST ESTIMATE:</b>												
<b>KITS</b>			1400	1.4	3600	3.5	500	.5			5500	5.4
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
<b>TOTAL</b>			1400	1.4	3600	3.5	500	.5			5500	5.4

**METHOD OF IMPLEMENTATION:** INSTALLATION - DEPOT  
LEAD TIME - 12 MONTHS

**MODIFICATION OF MISSILES  
FY-84 PROGRAM**

**FY-84 APPROPRIATION: MISSILE PROCUREMENT, AIR FORCE**

**MODIFICATION TITLE AND NO: AIM-7 UPDATE**

**MODELS OF MISSILES AFFECTED: AIM-7F**

**DESCRIPTION/JUSTIFICATION: ( )**

**SCOPE OF PROGRAM:**

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	2280	35.9	1439	7.7	653	2.5					4372	46.1
<b>BASIS FOR COST ESTIMATE:</b>												
NONRECURRING		.1										.1
KITS	2280	33.7	1439	5.8	653	2.5					4372	42.0
DATA		.2										.2
SUPPORT EQUIP.		.9										.9
TOOLING		1.0		1.9								2.9
<b>TOTAL</b>	2280	35.9	1439	7.7	653	2.5					4372	46.1

**METHOD OF IMPLEMENTATION: INSTALLATION - CONTRACTOR  
LEAD TIME - 12 MONTHS**



DATE 01/24/83

MODIFICATION OF MISSILES  
FY 1984 PROGRAM

FY 1984 PRESIDENT'S BUDGET

APPROPRIATION: MISSILE PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: ALCM SUPPORT EQUIPMENT

MODELS OF MISSILES AFFECTED: AGM-86

DESCRIPTION/JUSTIFICATION: INCORPORATION OF THE COMMON STRATEGIC ROTARY LAUNCHER INTO THE B-52H WILL REQUIRE MODIFICATION TO ALCM UNIQUE SUPPORT EQUIPMENT AND TEST SETS. SPECIFIC ITEMS TO BE MODIFIED ARE: 1) PYLON LAUNCHER CHECKOUT FRAMES (21 UNITS); 2) MISSILE LOADER TRAILERS (26 UNITS); 3) LAUNCHER LOADER ADAPTERS (103 UNITS); 4) ELECTRONIC SYSTEMS TEST SETS (85 UNITS). THE TOTAL BUY OF LAUNCHERS IS 103 UNITS.

DEVELOPMENT STATUS: CSRL PHASE ONE STUDY RFP RELEASED MAY 82; FSD CONTRACT JUN 83 CONCURRENT WITH PRODUCTION CONTRACT AWARD.

PROJECTED FINANCIAL PLAN:

	FY-84		FY-85		FY-86		FY-87		FY-88		T O T A L	
	QTY	AMT	QTY	AMT	QTY	AMT	QTY	AMT	QTY	AMT	QTY	AMT
		5.8		11.7		22.3		17.4		11.5		68.7
BASIS FOR COST												
ESTIMATE:												
NONRECURRING		.3										.3
DATA		.7										.7
SUPPORT EQUIP.		4.8		11.7		22.3		17.4		11.5		67.7
TOTAL COST		5.8		11.7		22.3		17.4		11.5		68.7
(P-1100)												

METHOD OF IMPLEMENTATION: INSTALLATION -- ORG/INTERMEDIATE  
LEAD TIME -- 15 MONTHS

MODIFICATION OF MISSILES  
FY-84 PROGRAM

FY-84 APPROPRIATION: MISSILE PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: GROUND LAUNCHED CRUISE MISSILE UPDATE

MODELS OF MISSILES AFFECTED: BGM-109 GLCM

DESCRIPTION/JUSTIFICATION: MISSILES REQUIRE CHANGES TO CORRECT DEFICIENCIES REVEALED DURING OPERATIONAL TESTING AND INITIAL USE. CORRECTIONS ARE INCORPORATED IN PRODUCTION AT THE EARLIEST TIME. UPDATE MODIFICATIONS ARE REQUIRED TO MAINTAIN CONFIGURATION CONTROL OF DELIVERED MISSILES AND THOSE TOO FAR INTO PRODUCTION FOR INCORPORATION.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	---	----	---	----	---	----	---	----	---	----	-----	-----
BASIS FOR COST ESTIMATE:				3.6		19.5		26.9		69.1		119.1
KITS				3.6		19.5		26.9		69.1		119.1
TOTAL	-----	-----	-----	3.6	-----	19.5	-----	26.9	-----	69.1	-----	119.1

MODIFICATION OF MISSILES  
FY-84 PROGRAM

FY-84 APPROPRIATION: MISSILE PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: CORRECT GRAVITY BIAS, MN-10602B

MODELS OF MISSILES AFFECTED. AGM-45

DESCRIPTION/JUSTIFICATION: UNDER CERTAIN LAUNCH SCENARIOS, THE SHRIKE MISSILE CAN IMPACT SHORT OF THE TARGET DUE TO GRAVITY DROOP. THIS PROBLEM WAS FIRST IDENTIFIED DURING AGM-45-9 IOT&E. PREVIOUS FIXES HAVE BEEN FOUND UNACCEPTABLE. ENGINEERING IS NOW UNDERWAY TO CORRECT THIS DEFICIENCY.

SCOPE OF PROGRAM:

PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
---	----	---	----	---	----	---	----	---	----	-----	-----
				1600	17.5	900	9.9	900	11.4	3400	38.8

BASIS FOR COST ESTIMATE:

NONRECURRING  
KITS  
DATA

					2.1						2.1
				1600	15.1	900	9.9	900	11.4	3400	36.4
					.3						.3
---	----	---	----	---	----	---	----	---	----	-----	-----
TOTAL				1600	17.5	900	9.9	900	11.4	3400	38.8

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE  
LEAD TIME - 12 MONTHS

1. COMPONENT USAF		FY 1984		FACILITIES		PROJECT DATA		2. DATE JAN 1985	
3. INSTALLATION AND LOCATION AFP 78 Thiokol, Brigham City UT					4. PROJECT TITLE Modify Bldg M-528 MPC 1000				
5. PROGRAM ELEMENT 78011F		6. CATEGORY CODE 226-227		7. PROJECT NUMBER		8. PROJECT COST (\$000) 308.6			
9. COST ESTIMATES									
ITEM				U/M	QUANTITY	UNIT COST	COST (\$000)		
Modify M-528 STDS Mixer Bldg for 50 Gallon Mixer							308.6		
10. DESCRIPTION OF PROPOSED CONSTRUCTION									
<p>Modify M-528 Standards Mixer Building to provide for installation of the 50 gallon vertical mixer.</p> <ol style="list-style-type: none"> <li>1. Reinforce structure for more hoist capacity.</li> <li>2. Raise roof to accommodate feed system.</li> <li>3. Equipment room addition.</li> </ol> <p>Modification of the M-528 Standards Mixer Building is required prior to installation of the Thiokol funded 50 gallon, vertical, liquid seal mixer. Propellant mixed in the existing 20 gallon mixer has high variability in physical properties because vacuum mixing capability is not available.</p> <p><u>Basis of Need</u></p> <p>Required to support MX rocket motor work.</p>									

1. COMPONENT USAF		FY 19 84		FACILITIES		PROJECT DATA		2. DATE JAN 1983	
3. INSTALLATION AND LOCATION AFP 78 Thiokol, Brigham City UT					4. PROJECT TITLE Elect Service, M-623 MPC 1000				
5. PROGRAM ELEMENT 78011F		6. CATEGORY CODE 226-227		7. PROJECT NUMBER		8. PROJECT COST (\$000) 148.3			
9. COST ESTIMATES									
ITEM					U/M	QUANTITY	UNIT COST	COST (\$000)	
New Electric Service, Build M-623.								148.3	
10. DESCRIPTION OF PROPOSED CONSTRUCTION									
<p>Increased power requirements in Assembly Building M-623 will require the installation of new electric service, a 300 KVA transformer and motor control to ensure proper build operation.</p> <p><u>Basis of Need</u></p> <p>Required for MX production work.</p>									

1. COMPONENT USAF		FY 1984		FACILITIES		PROJECT DATA		2. DATE JAN 1983	
3. INSTALLATION AND LOCATION AFP 78 Thiokol, Brigham City UT						4. PROJECT TITLE Elect Substation MPC 1000			
5. PROGRAM ELEMENT 78011F		6. CATEGORY CODE 226-227		7. PROJECT NUMBER		8. PROJECT COST (\$000) 590.83			
9. COST ESTIMATES									
ITEM				U/M	QUANTITY	UNIT COST	COST (\$000)		
Electrical Substation, E-535							590.83		
10. DESCRIPTION OF PROPOSED CONSTRUCTION									
<p>The main plant electrical substation E-535 distributes power to the unit substations throughout AF Plant 78. This main substation is a structural steel, radial type installation that is enclosed by a security fence. The main substation must be expanded to provide the additional power required to operate the second autoclave and teflon oven being installed in the M-508 Inert Parts Fabricating Building by Thiokol. The present substation capacity is 7,500 KVA and the forecasted load will require installation of a 3750 KVA transformer to increase the capacity to 11,250 KVA.</p> <p><u>Basis of Need</u></p> <p>Provide sufficient electrical power for MX production.</p>									

1. COMPONENT USAF		FY 19_84		FACILITIES		PROJECT DATA		2. DATE JAN 1983	
3. INSTALLATION AND LOCATION AFP 44 Hughes-Tucson AZ					4. PROJECT TITLE FACO Building MPC 1000				
5. PROGRAM ELEMENT 78011F		6. CATEGORY CODE 222-222		7. PROJECT NUMBER		8. PROJECT COST (\$000) 4000.00			
9. COST ESTIMATES									
ITEM				U/M	QUANTITY	UNIT COST	COST (\$000)		
FACO Building							4,000		
10. DESCRIPTION OF PROPOSED CONSTRUCTION									
<p>Provides for the construction of a new 27,000 square ft. Final Assembly and Checkout (FACO) building to support AMRAAM production. The building will be similar in construction to the existing FACO building No. 864 and will consist of a prefabricated metal wall and roof panels, steel framing, concrete floor (reinforced/unreinforced), blast walls, monorail, HVAC, fire protection system and normal facilities required of a building of this nature/function. Building will be designed to include energy conservation measures and will include provisions to the building into the Energy Monitoring and Control System of AFP 44.</p> <p><u>Basis of Need</u></p> <p>To support AMRAAM production.</p>									

1. COMPONENT USAF		FY 1984		FACILITIES		PROJECT DATA		2. DATE JAN 1983	
3. INSTALLATION AND LOCATION AFP 44 Hughes-Tucson AZ					4. PROJECT TITLE Environmental MPC 7000				
5. PROGRAM ELEMENT 78011F		6. CATEGORY CODE 831-155		7. PROJECT NUMBER		8. PROJECT COST (\$000) 6.165			
9. COST ESTIMATES									
ITEM					U/M	QUANTITY	UNIT COST	COST (\$000)	
Groundwater Decontamination								6.165	
10. DESCRIPTION OF PROPOSED CONSTRUCTION									
<p>A wellfield will be designed and installed to pump contaminated groundwater from the aquifer underlying AF Plant 44. A treatment plant will be constructed to treat contaminated water prior to delivery to the City of Tucson or other designated user.</p> <p><u>Basis of Need</u></p> <p>The planned project is necessary to fulfill AF responsibilities under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) incident to release of hazardous materials/wastes to the environment.</p>									



1. COMPONENT USAF		FY 1984		FACILITIES		PROJECT DATA		2. DATE JAN 1983	
3. INSTALLATION AND LOCATION AFP 44, Tucson AZ Hughes Aircraft Company						4. PROJECT TITLE Environmental MPC 7000			
5. PROGRAM ELEMENT 78011F		6. CATEGORY CODE 831-155		7. PROJECT NUMBER		8. PROJECT COST (\$000) 218.466			
9. COST ESTIMATES									
ITEM					U/M	QUANTITY	UNIT COST	COST (\$000)	
Elevate underground hazardous material/ waste storage tanks								218.466	
10. DESCRIPTION OF PROPOSED CONSTRUCTION									
<p>All underground tanks used to contain hazardous liquid materials and wastes will be replaced with above ground tanks with spill-prevention features required by US EPA and State of Arizona regulations.</p> <p><b>Basis of Need</b></p> <p>The planned work is to comply with RCRA Part B permit requirements for AFP 44 hazardous waste storage facilities.</p>									

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1 COMPONENT USAF		FY 1984		FACILITIES		PROJECT DATA		2 DATE JAN 1983	
3 INSTALLATION AND LOCATION AFP 78 Thiokol, Brigham City UT						4. PROJECT TITLE Addition to E-516 MPC 1000			
5 PROGRAM ELEMENT 78011F		6 CATEGORY CODE 226-227		7. PROJECT NUMBER		8. PROJECT COST (\$000) 564.98			
9. COST ESTIMATES									
ITEM				U/M	QUANTITY	UNIT COST	COST (\$000)		
Addition to E-516 for Tooling Preservation							564.98		
10 DESCRIPTION OF PROPOSED CONSTRUCTION									
<p>This addition to the west end of Building E-516 is required to provide the additional space and crane handling capability necessary to comply with the Government direction to improve the preservation system to provide adequate protection for all Government-owned tooling. The present two areas in use are too small and confined for the magnitude of tooling requiring cleaning and preservation or outgoing tooling waiting for pickup.</p> <p><u>Basis of Need</u></p> <p>Provide proper space for storage of government tooling.</p>									
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1. COMPONENT USAF		FY 1984		FACILITIES		PROJECT DATA		2. DATE JAN 1983	
3. INSTALLATION AND LOCATION AFP 78 Thiokol, Brigham City UT						4. PROJECT TITLE Lighting, E-517 MPC 1000			
5. PROGRAM ELEMENT 78011F		6. CATEGORY CODE 226-227		7. PROJECT NUMBER		8. PROJECT COST (\$000) 99.7			
9. COST ESTIMATES									
ITEM						U/M	QUANTITY	UNIT COST	COST (\$000)
Lighting E-517 Maching Shop									99.7
10. DESCRIPTION OF PROPOSED CONSTRUCTION									
<p>The E-517 Machine Shop is critical to the processing of components and tooling for MX, Trident C-4, and other programs. The present lighting level (20/25 fc) was designed when E-517 was constructed to satisfy the requirements of a general machine shop which was planned to perform maintenance work only. The Machine Shop is now equipped with high accuracy numerical control machines plus grinders, mills, presses, etc., capable of close tolerance missile component machining at production rates. This area of concentrated machine tools is operated on a multishift basis and requires adequate lighting (100fc) to provide proper visual operation. Consequently, improved lighting in the machine shop high bay will provide sufficient lighting levels with minimum energy to meet OSHA standards.</p> <p>1. Install 64 light fixture assemblies with lamps HID 1000 W Na vapor.</p> <p>2. Install 2 circuit breakers 480V 3P 30A in surface mount enclosure, conduit, wire, etc.</p> <p><u>Basis of Need</u></p> <p>Required to support MX, C-4, and other programs.</p>									

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